Introduction to Norway-Sweden ISI
– A cross-border development project

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Technical solutions shares by many*

Island
"Tetra Island"

Finland
"Virve"

Sverige
Rakel

Estland
"EDTN"

Norge
"Nödnett"

Danmark
"SINE"

Storbritannien
"Airwave"

Nederländerna
"ISC"

Belgien
"Astrid"

Tyskland
"BD BOS"
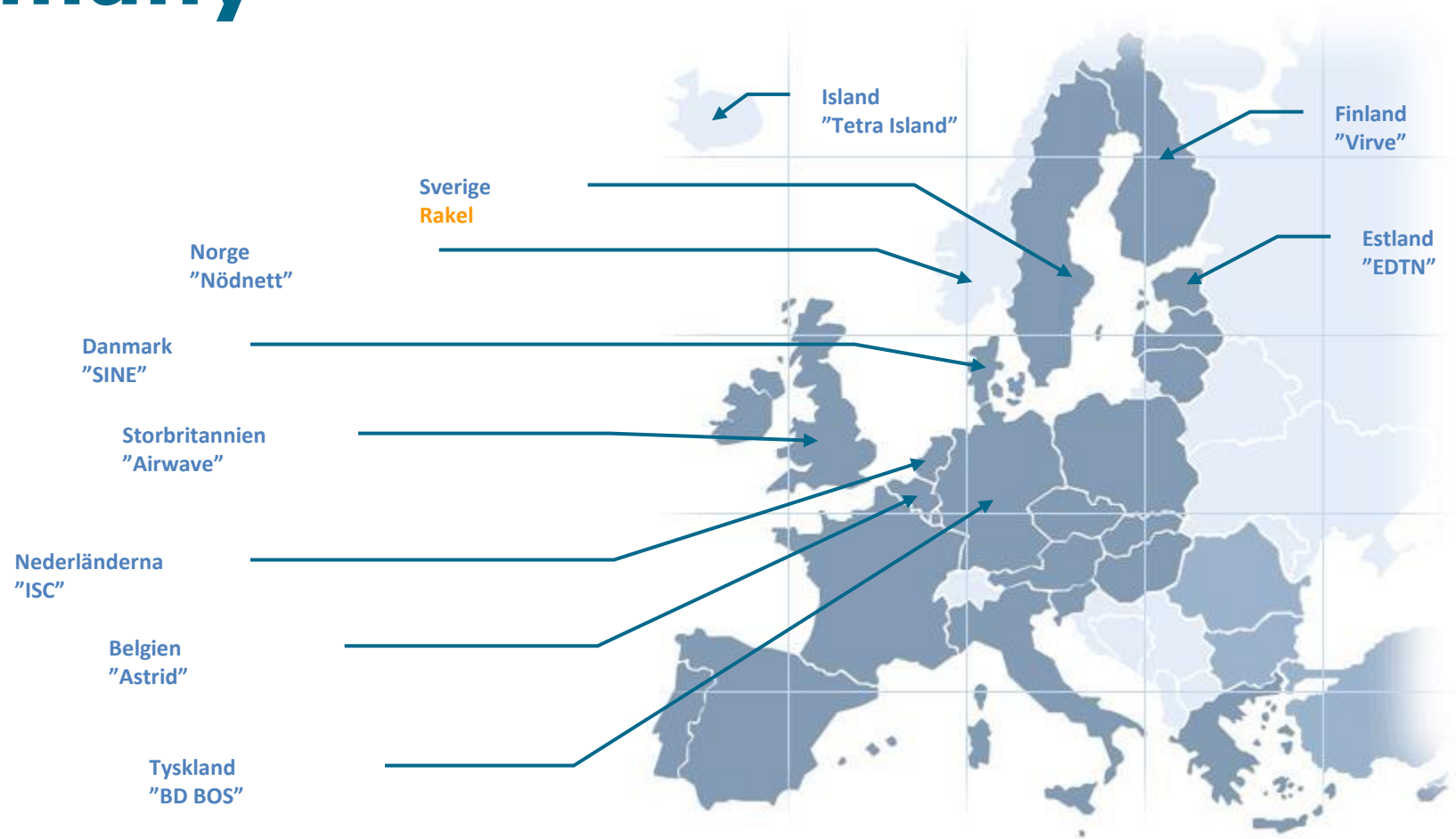
* All coutries/net is not on the PP

Agenda

- Short background
- Participant
- Time line
- Technical requirements
- Multi agency exercise
- The project for the moment

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Two countries with a long tradition of cross-border collaboration

Norway

Population: 5 000 000

Area: 385 000 km2

Population density:
15 persons per km2

Sweden

Population: 9 500 000

Area: 528 000 km2

Population density:
20 persons per km2

**Common border:
1619 km**

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Condition and challenges are smilar

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Risk and threats do not care about border

- Terrorisme
- Extreme weather (storms, floods)
- Organized crime

Haga II Declaration – A robust Nordic Region without boarders

The goal for the Nordic Region cooperation concerning civil security and emergency preparedness is the Nordic region without borders.

The collaboration is focused on the ability to prevent, resist, manage, recover and learn from accidents and emergencies.

Norway-Sweden ISI

Cross-border development to support collaboration between crisis management actors in Norway and Sweden in accidents and crises.

Contract signed September 2012.

When dealing with emergencies we must forget about our national borders.

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First real implementation of cross-border communication (ISI) in Europe

- Two networks
- Two neighboring countries
- A collaboration project
- First ISI implementation between two national Tetra networks

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Project goal

- **Swedish bluelight actors will use there Rakelterminals in Norway**
- **Norwegien bluelight actors will use there Nödnett terminal in Sweden**

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Focus is on practical use

Three workgroups with end-users from both Norway and Sweden

- Health/Ambulance service
- Fire/Rescue service
- Police
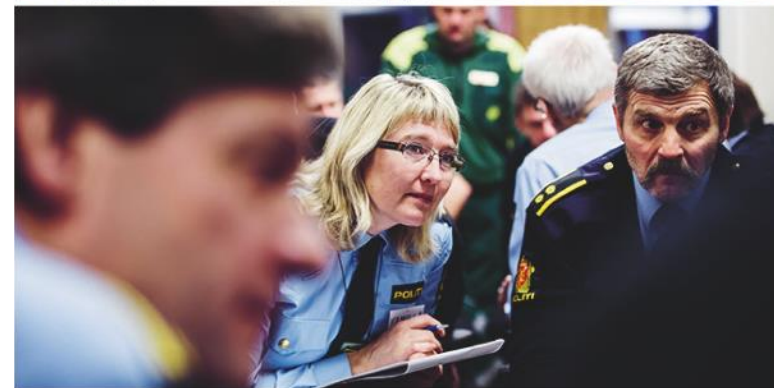
The project will result in

- Draft legal agreement

- User guidelines

  – Methodology for management and cooperation

  – Structure talk groups

  – Common terminology

- Training for end-users, operators and decisions makers

A final major exercise where
the ISI functionality is put into practic

Nationella riktlinjer för samverkan i Rakel

Felles sambandsreglement for nødetatene og andre beredskapsbrukere

Versjon 3

Timeline Nor-Swe ISI

Scope defined	Sept 2012
Mutual cooperation analysis	Dec 2013
Software ready for supplier testing	Oct 2014
ISI solution approved for deployment	Aug 2015
Operationally ready for service – Cross Border	Nov 2015
Cross-border multi-agency exercise	Spring 2016

Work packages

Participants

Technical delvelopment
- ISI gateway Nødnett and Rakel
- Radio terminal and Control Room SW

Motorola, Airbus, MSB, DNK, Suppliers

Guidelines
- Framework for cross-border communication & collaboration

MSB, DNK, End users

Agreements
- Communication between two secure national networks

MSB, DNK

Multi-agency cross-border exercise

End Users, MSB, DNK

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A technology development group is responsible for

- Technical specifications

- Give input for improvements to ETSI TETRA specifications

- Establish conditions for the test environment

- Propose stepwise delivery of functionality

- Plan and perform acceptance testing

Nor-Swe ISI Features
ISI IOP Phase 1-3

Pre-approved radio terminals can work in
both networks – Nødnett and Rakel

Authentication

Individual Call

Group Call

Telephone Call

Emergency Call

End- to -end Encryption

Status

Short Data Service

Mobility Management

Air Interface Encryption

Supplementary Services

Prerequisites for migration

- Migration with full ITSI, i.e. MCC + MNC + ISSI
- Visitors must be pre-provisioned in the host network
- Authentication in the home network is required
- Host network informs the home network of visitors on migration

Draft Talkgroups Norway-Sweden ISI

POLICE	NO-SE-P-(1-5)	+ special purpose TG
FIRE/RESCUE	NO-SE-F-(1-5)	
HEALTH/AMBULANCE	NO-SE-H-(1-5)	
EMERGENCY COOPERATION	NO-SE-EM-(1-5)	Blue light
COOPERATION ALL	NO-SE-CO-(1-5)	All

Some features are different across the border

- **Emergency call – individual call vs group call**

- **Speech item queuing – not used in Nødnett**

- **Manual or automatic migration? → radio terminal question**

- **Cross-border positioning - not part of the ISI standard**

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Radio terminals and Control Rooms

Radio terminals

    - ISI requirements ready

    - Information meeting with radio   June 13 2014
      terminal suppliers

Control rooms

    - ISI requirements are being
      developed

To ensure effective cross-border communication we also must bridge across:

Cultures. Organisations. Behaviors. Methods and Procedures.

Nor-Swe ISI will give valuable insight to ISITEP

- Involve end-users even within ISITEP
- Direct input on requirements and operational needs from emergency services
- Well-grounded work
- ISITEP gets a shorter takeoff
- Wider possibilities to succeed and make an impact

Deliveries to ISITEP

- Legal aspects and templates for agreements
- Preparation of performance requirements linked to scenario and collaboration
- Talk group structure and numbering
- Analysis and preparation of methods for collaboration
- Training/instruction for the different functions
- Planning and implementation of exercise
- Handbook/guidelines for cross-border collaboration

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Thank you!

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Extra

Solutions in use today

- Euro-DMO talk groups
- Back-to-back solution (Nor-Swe
- Loan of terminals

- Limited functionality, cannot be used in the other network.